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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,521	12/14/2001	Nayef M. Abu-Geel	CORE-73	8234
7590 04/14/2004			EXAMINER	
Pandiscio & Pandiscio 470 Totten Pond Road Waltham, MA 02451-1914			LEE, JOHN D	
			ART UNIT	PAPER NUMBER
			2874	

DATE MAILED: 04/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/017,521

Applicant(s)

ABU-AGEEL, NAYEF M.

Examiner

John D. Lee

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 18-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17, 33 and 34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-34 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

Applicant's election without traverse of Invention I (claims 1-17, 33, and 34) in the communication filed on March 4, 2004, is acknowledged. Claims 18-32 are withdrawn from further consideration by the Examiner, 37 CFR § 1.142(b), as being drawn to a non-elected invention.

The ten (10) sheets of drawing filed in this application on December 14, 2001, are acceptable.

Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claims 2, 8, 10-12, and 33 are objected to for the following minor informalities. In claim 2, lines 2-3, "said reflector" should actually be "said reflecting surface". In claim 8, lines 1-2, "said holes" should actually be "said openings". In claim 10, line 3, and claim 12, line 3, "said reflector" should actually be "said reflecting surface". In claim 11, line 3, "said hole" should actually be "said opening". In claim 33, lines 12 and 16 (two instances), "said hole" should actually be "said opening". Appropriate correction is required.

The following is a quotation of the second paragraph of 35 U.S.C. § 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3, 6, 15, and 17 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 3 (lines 1-2), there is no antecedent support for the term "said actuator", thus rendering the claim indefinite. In claims 6 (lines 1-2) and 15 (line 2), there is no antecedent support for the term "said actuator device", thus rendering the claims indefinite. Claim 17 is indefinite because it appears that its

dependency is incorrect, there being no antecedent support for “said openings” and “said sets”. For examination purposes it will be assumed that claim 17 is intended to depend from claim 16. Also for examination purposes it will be assumed that the antecedent lacking terms in claims 3, 6, and 15 are each intended to be “said member movement means”.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in—

- (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
- (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1-6, 9-15, 33, and 34 are rejected under 35 U.S.C. § 102(e) as being clearly anticipated by U.S. Patent 6,404,969 to Tayebati et al. Tayebati et al discloses an optical switch and attenuator based on a MEMS-driven cantilever member having an opening and a reflecting surface which selectively couples light between first, second, third, and fourth optical fibers in exactly the same manner set forth in applicant’s claims (see Figure 3 of Tayebati et al). Note that there can be complete transmission through the opening, complete reflection by the reflecting surface, or any intermediate combination of simultaneous transmission and reflection, depending on the selective positioning of the cantilever member.

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

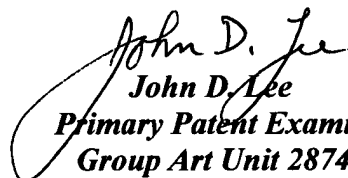
Art Unit: 2874

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7, 8, 16, and 17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 6,404,969 to Tayebati et al. Tayebati et al does not show in any of the drawings therein an embodiment comprising plural sets of what is shown in Figure 3. In column 1, lines 49-51, however, the reference indicates that such a multiple arrangement is contemplated. The provision of an embodiment comprising plural sets of what is shown in Figure 3 of Tayebati et al would thus have been obvious to a person of ordinary skill in the art.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 6,591,032 to Tayebati et al shows essentially the same thing as U.S. Patent 6,404,969 to Tayebati et al, relied on in the rejection above.

Any inquiry concerning the merits of this communication should be directed to Examiner John D. Lee at telephone number (571) 272-2351. The Examiner's normal work schedule is Tuesday through Friday, 6:30 AM to 5:00 PM. Any inquiry of a general or clerical nature (i.e. a request for a missing form or paper, etc.) should be directed to the Technology Center 2800 receptionist at telephone number (571) 272-1562, to the technical support staff supervisor (Team 8) at telephone number (571) 272-1564, or to the Technology Center 2800 Customer Service Office at telephone number (571) 272-1626.

  
**John D. Lee**  
**Primary Patent Examiner**  
**Group Art Unit 2874**